

**Missouri Assessment Program**  
**Spring 2006**

**Mathematics**

**Scoring Guides for Released Items**

**Grade 4**

**Session:** 1  
**Item Number:** 5  
**Page Number:** 4  
**Content Standard(s):** 4 Patterns and Relationships  
**Process Standard(s):** 3.5  
**Grade Level Expectation(s):** A2A

Strand: 02 Algebraic Relationships
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**Exemplary Response:**

- $10 \times 2 = 20$

OR

$$10 + 10 = 20$$

AND

- $12 \times 3 = 36$

OR

$$12 + 12 + 12 = 36$$

OR

Other valid process

Note: For a number sentence to be correct, it must be written horizontally.

**Score Points:**

2 points Exemplary response

1 point One component

0 points Other

Strand: 04 Measurement

**Session:** 1  
**Item Number:** 11  
**Page Number:** 7  
**Content Standard(s):** 2 Geometric/Spatial Sense and Measurement  
**Process Standard(s)** 3.1  
**Grade Level Expectation(s):** M1D

**Exemplary Response:**

- (\$)4.37

AND

- $10 \times 0.25 = \$2.50$   
 $12 \times 0.05 = \$0.60$   
 $11 \times 0.10 = \$1.10$   
 $17 \times 0.01 = \underline{\$0.17}$   
      (+ ) (\$)4.37

OR

Other valid process

**Score Points:**

2 points	Exemplary response
1 point	Correct answer OR Correct process; error in computation
0 points	Other

Strand: 02 Algebraic Relationships

**Session:** 1  
**Item Number:** 14  
**Page Number:** 10  
**Content Standard(s):** 4 Patterns and Relationships  
**Process Standard(s)** 1.6  
**Grade Level Expectation(s):** A1B

**Exemplary Response:**

- 75 (minutes)

AND

- $35 + 10 = 45$  for day 4  
 $45 + 10 = 55$  for day 5  
 $55 + 10 = 65$  for day 6  
 $65 + 10 = 75$  for day 7

OR

Other valid process

**Score Points:**

2 points	Exemplary response
1 point	Correct answer OR Correct process; error in computation
0 points	Other

Strand: 02 Algebraic Relationships

**Session:** 1  
**Item Number:** 19  
**Page Number:** 13  
**Content Standard(s):** 4 Patterns and Relationships  
**Process Standard(s):** 1.6  
**Grade Level Expectation(s):** A1B

**Exemplary Response:**

- 11, 16

AND

- I added 1 to first number ( $1 + 1$ ), then 2 to the second number ( $2 + 2$ ), then 3 to the third number ( $4 + 3$ ), then 4 to the fourth number ( $7 + 4$ ), and 5 to the fifth number ( $11 + 5$ ).

OR

Other valid explanation

**Score Points:**

2 points	Exemplary response
1 point	One component
0 points	Other

Strand: 05 Data and Probability

**Session:** 1  
**Item Number:** 23  
**Page Number:** 16  
**Content Standard(s):** 3 Data Analysis, Probability, and Statistics  
**Process Standard(s)** 3.1  
**Grade Level Expectation(s):** D2A

**Exemplary Response:**

- 3 (students)

AND

- Strawberry  $6 \times 3 = 18$   
Chocolate  $1 \times 3 = 3$   
Vanilla  $4 \times 3 = 12$   
(Chocolate plus vanilla)  $12 + 3 = 15$   
Strawberry minus (chocolate plus vanilla)  $18 - 15 = 3$

OR

Other valid process

**Score Points:**

2 points	Exemplary response
1 point	Correct answer OR Correct process; error in computation
0 points	Other

Strand: 01 Number and Operations

**Session:** 1  
**Item Number:** 25  
**Page Number:** 18  
**Content Standard(s):** 1 Number and Operations  
**Process Standard(s):** 3.6  
**Grade Level Expectation(s):** N3D

**Exemplary Response:**

- Nikko knows  $10 \times 10 = 100$ . So the answer has to be more than 100.

OR

Other valid explanation

AND

- Juanita knows  $12 \times 10 = 120$ , and 11 is close to 10. So the answer has to be about 120.

OR

Other valid explanation

**Score Points:**

2 points	Exemplary response
1 point	One component
0 points	Other

Strand: 05 Data and Probability
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**Session:** 1  
**Item Number:** 30  
**Page Number:** 22-23  
**Content Standard(s):** 3 Data Analysis, Probability, and Statistics  
**Process Standard(s)** 1.8, 4.1  
**Grade Level Expectation(s):** D2A

**Score Points:**

4 points The student's response fully addresses the performance event.

The response:

- demonstrates knowledge of transferring data from a table to bar graphs.
- takes information and makes it visual.
- communicates the information about the data in the 2 graphs and the table.
- responds with an understanding of the important features of a data set.
- may have only minor flaws with no effect on the reasonableness of the solution.

3 points The student's response substantially addresses the performance event.

The response:

- demonstrates knowledge of transferring data from a table to bar graphs.
- takes information and makes it visual.
- communicates the information about the data in the 2 graphs and the table.
- responds with an understanding of most of the important features of a data set.
- may have only minor flaws with minimal effect on the reasonableness of the solution.



<b>Session:</b>	<b>1</b>
<b>Item Number:</b>	<b>30</b>
<b>Page Number:</b>	<b>22-23</b>
<b>Content Standard(s):</b>	<b>3 Data Analysis, Probability, and Statistics</b>
<b>Process Standard(s)</b>	<b>1.8, 4.1</b>
<b>Grade Level Expectation(s):</b>	<b>D2A</b>

Strand: 05 Data and Probability
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2 points                      The student's response partially addresses the performance event.

The response:

- demonstrates a limited knowledge of transferring data from a table to bar graphs.
- takes information and makes it visual.
- communicates some of the information about the data in the 2 graphs and the table.
- responds with some understanding of the important features of a data set.
- may have flaws or extraneous information, which indicates some lack of understanding or confusion.

1 point                      The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of transferring data from a table to bar graphs.
- takes information and makes it visual.
- communicates little information about the data in the 2 graphs and the table.
- responds with little understanding of the important features of a data set.
- may have flaws or extraneous information, which indicates lack of understanding or confusion.

0 points                      Other—Responses not addressed by the Condition Codes.

Examples of "0":

Work consists of copying the prompt information only.  
Work indicates no mathematical understanding of the task.

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Grade Level Expectation(s): D2A

Strand: 05 Data and Probability
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**Exemplary Response**

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**BAKERY**

Day	Pies	Cakes	Breads	Total Items Sold
Monday	4	6	8	18
Tuesday	3	4	6	13
Wednesday	10	13	15	38
Thursday	3	5	6	14
Friday	5	9	7	21
Total	25	37	42	

Session: 1

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Content Standard(s): 3 Data Analysis, Probability, and Statistics

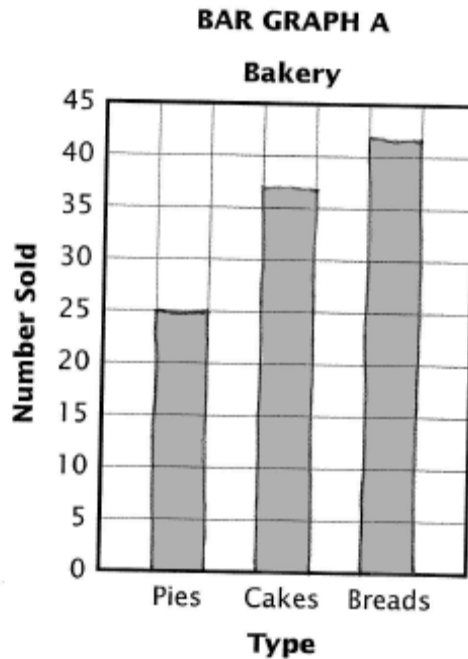
Process Standard(s) 1.8, 4.1

Grade Level Expectation(s): D2A

Strand: 05 Data and Probability

AND

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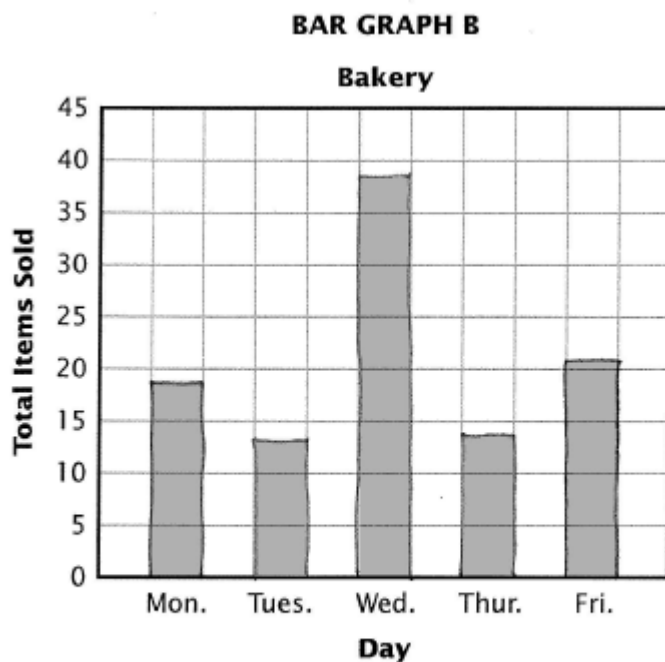


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AND

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AND

- The table gives you information about the number of each type of item sold, but Bar Graph B does not give this information.

OR

Other valid explanation

AND

- Wednesday has the highest bar, so it could be the day of the sale.

OR

Other valid explanation

AND

- What item at the bakery sold the most in one week?

OR

Other valid question

**Score Points:**

Apply the 4-point holistic rubric.